## Report of the IMCT to Surat:

## **Introduction**

The Ministry of Home Affairs vide order No 40-10/2020-DM-I(A) dated 23<sup>rd</sup> April, 2020 constituted two Inter Ministerial Central Teams (IMCT) under the relevant provisions of the Disaster Management Act 2005 to "visit the Ahmadabad and Surat districts of Gujarat, make an on the spot assessment of the situation, issue directions to the state authorities for redressal of the situation, and submit their report to the Central Government in the larger interest of general public."

The team to Surat was constituted as follows:

"IMCT 2:

- 1. Shri G Asok Kumar, Additonal Secretary, Ministry of JAl Sakthi....Team leader
- 2. Dr Neelam Roy, HoD Community Medicine, Atal Bihari Vajpayee Institute of Medical sciences (ABVIMS) & Dr Ram Manohar Lohia Hospital.
- 3. Dr Anil K Gupta, Professor, NIDM
- 4. Dr OP Singh, Chief General Manager, Food Corporation of India (FCI)
- 5. Mr Daulat Ram Meena, Deputy Secretary, Ministry of Health Research."

It was mentioned in the order that "the IMCTs will focus their assessment on the compliance and implementation of lockdown measures as per guidelines issued under the Disaster Management Act 2005; they will focus on lissues like supply of essential commodities, social distancing in movement of people outside their homes, preparedness of the health infrastructure, hospital facilities and sample statistics in the district, safety of health professionals, availability of test kits, PPEs, masks and other safety equipment, and conditions of relief camps for labor and poor people;" Copy of the order in annexure 1.

After a briefing session with the Home Secretary at 945 hrs on 24/4/2020, the team left to Surat by a special flight at 1600hrs. The team returned on 3/5/2020 at 2000 hrs, after spending 10 days in Surat. The team had been daily submitting the report of their activities and observations to the MHA. (copies in annexure 2).

This is the final report of the team.

#### **Executive Summary**

Surat, a commercial and economic center in South Gujarat which is famous for its diamonds and textile Industries, had 57 lakh population (78% urban) as per Census 2011. In 2020, it is estimated to be 75.8 lakhs (76% urban) with Surat city having population density of 19,075 people/sq km. According to an estimate, there are over 11.2 lakh migrant labours here.

## **Status**, as on 3/5/2020, when the team left Surat is as follows:

There were a total of 698 Covid-19 positive cases identified (657 in Surat Municipality limits, 41 in Rural areas), 31 Deaths (SM-30, R-1), 158 patients discharged 509 active cases (SM-475, R-34), 31hotspots (SM-31).(On 4/5/2020, 103 patients were discharged and active number of cases stood at 425). There is adequate number of beds for Covid-19 patients; medicines available for the present case load. For cases anticipated also, sufficient facilities including beds, ventilators, medicines etc are available. There is sufficient number PPE for the health professionals.

<u>Implementation of lockdown</u> is done very well in the rural areas, with villagers taking keen interest to avoid spread of the virus in their area. However, in the city limits it is not consistent-temporally and spatially.

According to an estimate, there are 11.2 lakh migrant labours in colonies spread over 12 major industrial areas engaged in Textile (80%, mostly from Odisha, UP, Bihar, Rajasthan, Maharashtra), Diamond (next major chunk, but mostly from Saurashtra area within Gujarat itself), Chemical, Construction (mostly from MP, Chattisgarh, Jharkhand) etc. There about 3 lakh migrant labours from Odisha and UP (each), many of them are single males. 7 incidences of unrest were recorded, involving about 10,000 people seeking permission to go home. Most of the wages have been paid upto March, 2020.

7.54 lakh <u>cooked meals</u> were distributed on 3/5/2020; <u>cumulatively 2.4 Crore</u> meals since the beginning of the lockdown. This is mostly being made by NGOs, religious organizations and industry associations and distributed under the administration's control. Adequate quantities of good quality essential commodities are available.

4 trains, each carrying 1200 migrant labours had left for Jagannathpuram, Odisha from Surat. This is in addition to 86,431 people left by 6367 buses and vehicles hired by them. 5 trains (3 to Odisha, 1 to Bihar and 1 to Jhakhand) left on 4/5/20 and another 8 movements planned for 5/5/20.

As seen above, the main problem in Surat is the issues related to managing the migrant labours, mostly single males, than the medical management issues associated with Covid-19. The large number of migrant labours, housed in ultra-high density tenements, can act as superspreaders. So in our meetings after the initial site visits, the team had been repeatedly emphasising on *de-congesting the dwellings of these people* by arranging accommodation in schools etc (which are any way closed now), or temporary sheds, or in unoccupied - even incomplete PMAY houses etc, or *pushing for their mass evacuation* by point-to-point trains at the earliest and to keep them *engaged* by *kick-starting staring the industrial activities* or *online smart phone games, trivia/filimi quizzes etc.* Supply of cooked meals be tapered down, by providing dry ration kits to avoid crowding at the food distribution centers. The district administration is to be a bit more energized to make it happen on the field. The industries should be operational at the earliest, if needed by demand creation by government, like making of uniforms etc and assisting them with working capital. City Police has to be stricter in the implementation of lockdown. Presence of more CPMF will be helpful.

## I. Health Infrastructure

About 76% of the population (urban) –is being served by Surat Municipal Corporation (SMC) while 24% (rural) is handled by District administration.

#### **Urban Health Infrastructure:**

Tertiary Health Services (2): 1. SMIMER Medical College & Hospital

2. Government Medical College & New Civil Hospital

Secondary Health Services (19): 1. Muskati Hospital

2. Urban PHC – 7

3. Maternity Home – 11

Primary Health Services (33): 1. Urban PHC – 33 (Medical Officers – 76)

Outreach Health Services: 1. ANM (520)/ ASHA (483)

2. Anganwadi Centres (1092)

#### **Rural Health Infrastructure:**

Tertiary Health Services: 1. Government Medical College & New Civil Hospital

No. of Sub-district Hospital: One No. of CHCs: 14 No. of PHCs: 57 No. of Subcentres: 358

## **II. COVID Dedicated Health Infrastructure**

## Availability and Occupancy of beds at various tiers of COVID – 19 management (as on 01.05.2020)

Facility	No. of beds available	No. of beds occupied
COVID Hospital	1690	284
<b>COVID Health Centre</b>	540	0
<b>COVID Care Centre</b>	1000	220
<b>Quarantine Care Facility</b>	1148	475
<b>Grand Total</b>	4378	979

#### **Total number of ventilators available = 209**

Some of these facilities were visited by the IMCT. The observations are enclosed herewith (Annexure III)

## **III. Testing Facility (RT-PCR)**

Four labs are identified to do testing for SARS Cov 2 by RT-PCR of which 2 are government while 2 are private labs. As of 30.04.2020, a total of 14,211 tests have been done and 622 came out to be positive.

Availability of kits are as follows:

- 1. PCR Run plates = 7587
- 2. RT PCR kits = 3606
- 3. RNA extraction kits = 1230
- 4. VTM = 2888

## **IV. Training of Health Care Workers:**

The following health care workers were trained on various aspects of COVID-19 management including initiation of Ventilator Demonstration, use of PPE, appropriate management of COVID-19 in 3 tier systems, management of pregnant women in COVID-19 and infection prevention & control measures:

S.No.	Health Care Worker	Number
1	Faculties	216
2	Medical Officers	261
3	Resident doctors	83
4	Lab Technicians	11
5	Lab/ Animal/ DH Attendants	4
6	MSW	78
7	Class 4 worker	11
8	Clerks	8
	TOTAL	1344

## V. Safety of Health Care Workers:

## **Availability of Personal Protective Equipments & other items**

S. No	Item name	Stock as on 02.05.2020
1	PPE kits	37,138
2	Triple layer mask	10,21,405
3	N95 mask	45,852
4	Alcohol based sanitizer (Litres)	18,694
5	Hand gloves (disposable)	1,25,498
6	Tablet HCQS 200 mg	1,16,160
7	Sodium Hypochlorite solution (Litres)	57,921

Surat has a large number of textile industries and some of these are manufacturing PPE kits. Hence, there is no shortage of the PPE kits in Surat.

## **Exposure of Health Care Workers to COVID-19 cases**

A total of 16 Healthcare workers including 2 doctors were found to be positive after exposure with COVID-19 confirmed cases in the hospital as described below:

Doctors -2, PHW -1, SI/SSI -5, Aaya -1, Ward boy -2, ICDS worker -2, Clerk -1, Computer operator, other -1

All of these were either asymptomatic or mildly symptomatic. No HCW died of COVID-19.

## VI. Identification of Cases and people at high risk of getting infected:

- **1. Toll free Helpline** to share details about travelers or suspects in their society/ apartment/ vicinity
- 2. International traveler information was also received from Government of India
- 3. From Private Clinics/ Hospital and Urban Health Centres
- 4. Door to door survey
- 5. Information from Employee Connect App
- 6. Self declaration Form on SMC website & SMC COVID Tracker App
  - Those persons with travel history were mandated to self- declare on SMC website and this notification was published.
  - After identification of first case of COVID-19, SMC (Surat Municipal Corporation) COVID Tracker App was launched to track home quarantined people in the city. After installing the app, the user is required to declare his or her current location and travel history. If the user is found to have moved out of the house or the specified area, he or she is sent to institutional quarantine. Every day in the morning, people send their selfie with a message with the details about symptoms they are facing every day. If a person moves away more than 10 meters from their home, SMC gets an alert about it.

#### 7. War Room at Vesu Urban Health Centre:

- MBBS intern doctors are deployed for tracking and follow up of suspects.
- All the home quarantined people registered on SMC COVID tracker app are followed up from War Room.
- If suspect is more than 50 years of age or/and with Co-morbid conditions are referred to CHC for treatment and sampling. Special SMS is sent for CHC reference with doctor name and contact number with location link. Telephonic assistance or logistic support if required is provided to suspect to reach CHC.

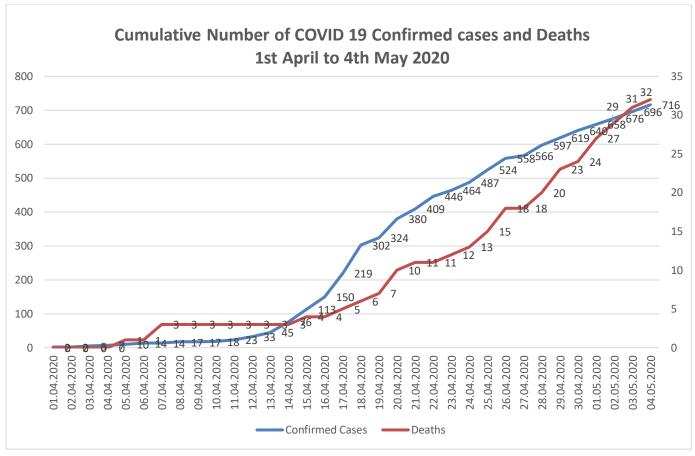
- ALL ARI cases are mapped and those within 1 km radius of any confirmed case are contacted and counselled to stay home and maintain personal hygiene and guided to get tested whenever required.
- ARI cases identified by active and passive surveillance are visited by RBSK AYUSH doctors.
- 8. IDSP Cluster survey entry is done in **TeCHO plus mobile App**.
- 9. It is notified that members of Indian Medical Association (IMA), private hospitals, physicians & paediatricians will have to mandatorily report ARI cases to SMC through **Jaimini software** on regular basis in order to keep the linelist updated.

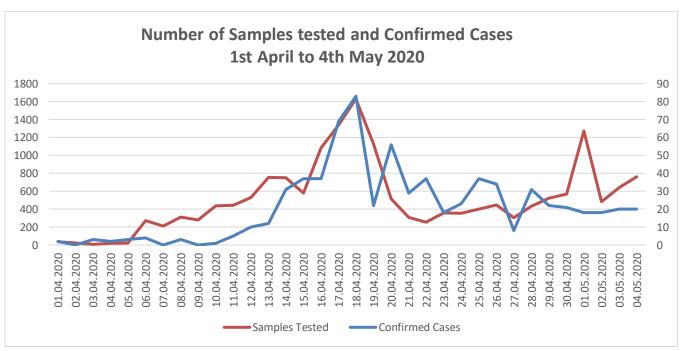
#### 10. Use of GIS

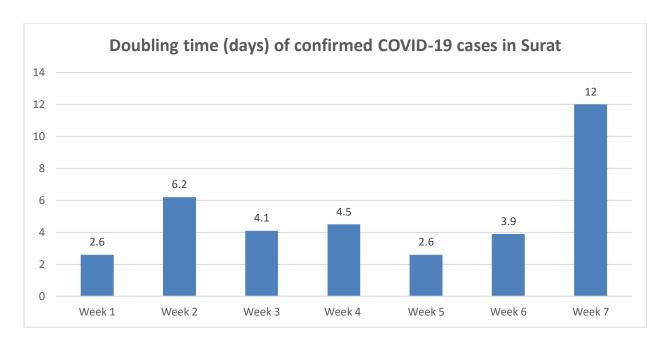
- Each COVID-19 case identified by active & passive surveillance is mapped using GIS.
   ARI patients data from private hospitals & practitioners is also integrated with this application.
- Then Containment zone & buffer zone identified and created.
- Heat maps generated based on various parameters like positive cases, ARI cases, density etc.
- Clusters are identified if more than 10 ARI cases noted within 100 meter radius which helps identify potential positive cases and to strategize testing.

#### VII. Status of testing, confirmed cases, discharged cases, deaths& hotspots as on 04.05.2020

		On 04.05.2020	Cumulative till
			04.05.2020
Testing	Surat City	549	13030
	Surat Rural	214	4607
	Total	763	17637
Positive cases	Surat City	17	674
	Surat Rural	3	44
	Total	20	718
Deaths	Surat City	1	31
	Surat Rural	0	1
	Total	1	32
Discharge	Surat City	98	250
	Surat Rural	5	11
	Total	103	261
Hotspots	Surat City	0	31
	Surat Rural	0	0
	Total	0	31







As can be seen from the above tables, the number of confirmed cases and deaths are on the rise. But the doubling time is increasing which is approximately 12 currently.

## **VIII. Review of Deaths:**

There was a total of 32 deaths as on 04.05.2020.

	Number	Percent
Age (years)		
< 50	7	21.9
50 - 60	10	31.2
> 60	15	46.9
Co-morbid Conditions*		
1. NIL	4	12.5
2. Hypertension	19	59.4
3. Diabetes Mellitus	14	43.8
4. CKD/ AKI	5	15.6
5. Others	7	21.9

\*Multiple co-morbidities were present

As can be seen from the above table, three quarters of the deaths were in the age group of 50 and more. Only 4 (16.7%) patients did not have any co-morbidity while the most common co-morbidities were Hypertension and Diabetes Mellitus. This is in consistence with data from all over the world.

## IX. Strengths:

1. Technology is being used to track the suspect and confirmed cases eg. Use of SMC COVID tracker app, TeCHO app, Jaimini Software to update the linelist etc.

- 2. Use of GIS to map the suspect and confirmed cases and also to identify clusters of ARI cases in containment zones to interrupt the transmission of the disease.
- 3. Intensive testing in containment zones of all the cases in the ARI clusters.
- 4. Adequate quantities of PPE kits, N95 masks, Triple layered masks, sanitizers, gloves etc are available. The PPE kits are locally manufactured.
- 5. Satisfactory 3 tier healthcare infrastructure in the district.

## X. Concerns& Suggestions:

- 1. The Medical officer in one of the Urban PHC was not aware of the guidelines regarding COVID-19 eg, whom to quarantine, whom to test, what is meant by home quarantine etc. In a Rural PHC, all the high risk asymptomatic contacts were tested on the next day of the last day of exposure with the confirmed case which might give false negative result. As per the guidelines, testing of high risk contacts should be done atleast 5 days after the last day of exposure. Hence, the team is of the opinion that training (on-site), retraining of all levels of health care workers is needed.
- 2. On observing that in the two containment zones visited by the team, the index cases had link to APMC market (wholesale vegetable & fruit market), one is a Police constable and the other is a worker in the APMC Market. The MOH, SMC was asked to provide information about how many confirmed cases are linked with APMC Market. It was learnt that 12 cases were the vegetable vendors and hence, some measures were taken to prevent transmission in the above-mentioned market like sanitization being done every day and fixing the positions of the vegetable vendors.

It is observed that many labourers were waiting outside the market and enter whenever a truck comes probably for unloading/ loading.

In the view of new cases still emerging from the same market, it may be concluded that transmission is ongoing in the area. Hence, it is suggested to do intensive sanitization, screening of all those attending this market and restricting the entry of the workers.

- 3. The intensive surveillance and testing in the containment zones to be continued.
- 4. It was observed that in 2 of the containment zones, lockdown/ social distancing measures were not being followed. Hence, it is suggested to strictly implement these measures.
- 5. It is suggested to make a plan to expand health infrastructure in view of future increase in demands.
- 6. The MSof the Tristar Hospital, a private dedicated COVID hospital, shared that it will be difficult to sustain this dedicated COVID hospital due to a lot of financial implications.

The hospital is paying risk bonus to all the healthcare workers, cost of procuring high quality PPE kits, arrangement of quarantine of the health care workers in nearby hotels are some of the factors which the hospital believe may be hindrance for continuing the hospital as dedicated COVID hospital. The SMC should do the needful to continue involvement of private hospital, e.g., exempting electricity/ water bills.

7. The quarantine facilities need to be expanded in view of expected surge of cases after lockdown. These quarantine facilities may also be used to decongest the densely populated migrant workers.

## The IMCT visited the following health facilities, containment zones etc:

#### 1. SAMRAS COVID Care Centre

- It has 4 wings having 989 beds. At present, 2 wings C & D are made functional.
- Every wing is having 9 floors. Ground floor has logistics store, administrative area and staff
  mess. First floor is medical team floor and second floor is suspected patients floor. All
  other are COVID confirmed floors.
- At present, 195 asymptomatic and mildly symptomatic are admitted at this Centre Male: 139, Female: 55 and one child.
- Every floor has a nursing station, Emergency room having Crash Cart & wheel chair, PPE donning and doffing areas.
- Biomedical waste is being managed as per the CPCB guidelines. One room in each floor is reserved for Biomedical Waste.
- Staff position: RMO 1, MO 11, DNS 1, ANS 2, Sister incharge 6, Staff Nurse 33, Chief SI 1, SI 4, SSI 8, Wardboy 12, Safai Kamdar 43, Aaya 12
- Food: Packed breakfast, lunch & dinner is served from inhouse mess.
- Back up Medical team is from SMIMER Medicine Unit and the referral hospital is New Civil Hospital.
- Lab Technician from New Civil Hospital comes to take samples whenever required.
- They have enough of PPE kits 782 while the daily requirement is 30-35. Other items available here are: N95 masks 640, three layered masks 2300, Gloves 15000, Disposable cap 1085, Tab Augmentin 1900, Tab PCM 1800, Tab Cetrizine 346

## 2. Containment Zone: Begumpura-Salabatpura-Akbar Sahid Tekro (Central Zone)

- Total Houses 7137
- Total Population 32341
- Total Cases 40
- Date of first case notification 05.04.2020
- Samples taken 787
- The first case did not give any history of travel (local or international) or contact with confirmed COVID case. Hence, the area was contained to prevent further transmission.
   The boundaries were clearly defined from Moti Talkies to Zalawad Tekro to Salabatpura police station to Halwawala Circle to Ichchhadosi Wadi to Akbar Sahid Road to

Sagarampura Putli to Navsari Bazar to DKM UHC to Kanskiwad to Malifaliya to Maskati Hospital to Moti Talkies. The area under quarantine is 3 square kilometer.

Strategies adopted for cluster containment:

- Immediate barricading was done to restrict the population movement with only three entry and exits
- The patients were asked to download SMC COVID Tracker App And home quarantine was ensured by directly monitoring by application
- Disinfection of all the areas visited by patient and also grocery stores, dairies, public gathering places, government institutions, govt. vehicles was done
- Active surveillance of ARI/ SARI cases and contacts in the identified geographical area
- Involving Private Clinic/ Hospital & UHC in Jaimini & Dr. TeCHO Application for ARI and SARI Cases Lie listing, follow up and sampling
- Expanding laboratory capacity for all suspect cases, high risk contacts and SARI cases
- All positive cases of COVID-19 patients to be shifted in New Civil Hospital/ Smimmer & also contact person to be shifted in quarantine facility
- Rs.1000 -Rs.5000 penalty for violation of compulsory social distancing and wearing masks
- IEC activity is being done through Rikshaw with audio system, pamphlets, posters, banners and IPC

The Team observed that in some places the people were found to be getting together in groups of 8 to 10 and a few were not wearing masks. SMC and Police officials were instructed to ensure the implementation of containment guidelines strictly.

## 3. Containment Zone: Rampura Lokhant Hospital

- Total Houses 4076
- Total Population 14877
- Total Cases 417
- Date of first case notification 09.04.2020
- Samples taken 358
- The initial two cases were health care workers in Lokhat Hospital. Subsequently cases were notified from the adjacent area of Rampura.
- The area was contained with defined boundaries from Saiyadpura Pumping Station to Khadi
   Sheri to Limda Sheri to Rampura Petrol Pump to Lalmiya Masjid to Masalchiwad to
   Saiyadpura main road to Siyadpura Pumping Station.

## 4. Food Distribution Centre, Rang Upvan

- The SMC provides ration to the NGO Akshay Patra for cooking and distribution of food.
- At this location, they distribute food to about 550-600 persons for lunch while in the evening to approximately 350-400 persons.
- Food was fresh & brought in clean & hygienic containers.
- Food was distributed maintaining social distancing and all were wearing mask.
- Most of the beneficiaries were homeless and few were labourers.

# 5. Azad Nagar, Pande Sarai, Kailash Nagar, Road between Vinayak Nagar to Ganpat Nagar, Laxmi Nagar society & Gowalak Nagar & Police Colony

The team visited the above mentioned areas and observed that the people staying in these areas are not following lockdown measures. They were moving freely in groups and most of them not wearing mask.

The Police nearby was asked to do patrolling frequently to ensure that lockdown is followed.

## 6. Quarantine facility, Sarkari Kumar Chatralaya, Bhatna (South east zone)

- It has 250 beds, and can be extended upto 300.
- First floor is for administration doctor room, nursing room, administrative room, store room & rest rooms for staff.
- Second to fifth floor each floor has 12 rooms (6 beds in each room) with attached toilet and bathroom.
- Each person is provided with beds with linen (autoclaved daily), separate bucket, bathing mug, bathing kit (supplied every day), slippers, gloves, masks, sanitizer.
- Food facilities Morning UKALA (AYUSH formulation), Snacks twice daily with tea/milk, Milk & biscuits for children available any time, Lunch & Dinner
- Round the clock doctor & paramedical staff available. Ambulance is available on call to transfer the patients in need to the nearby CHC.
- Sanitization/ disinfection in every room & passage is done thrice daily.

## 7. SMIMER Hospital

- It has multilevel dedicated COVID Health Centre.
- It has 4 floors 540 beds (135 on each floor). All the beds are with Oxygen facility and there is availability of bedside X ray, pulse oximeters, Infra-red thermometers, BP apparatus, ECG machine, and transport ventilators are under procurement.

- SMIMER Hospital is running a Screening OPD with a sampling counter and the Microbiology lab at SMIMER is carrying out RT-PCR testing for COVID. A total of 2617 patients are screened till 27.04.2020 and 490 samples were collected out of which 35 came out to be positive.
- COVID 19 RT-PCR Lab is running round the clock since 17<sup>th</sup> April 2020 cumulative samples tested 1892 out of which 81 came out to be positive.
- An automated trolley to deliver medicines and food is manufactured locally by one of the IIT Students who donated this to the hospital for use in COVID Health Centre.

## 8. Containment Zone: Vesu EWS apartment

- There are a total of 2 cases. The entire apartment is sealed.
- The team observed that all the residents of the apartment are inside their house and no one was seen outside.

#### 9. PHC, Mohini

- It caters to a population of 68,000 including about 20,000 migrants (Textile workers & Coolie from UP, Odisha, Bihar).
- The PHC runs an OPD (average attendance 40-45 cases which is 40-50% less than the usual OPD last year), has a labour room and a minor OT. Two deliveries were conducted during the month of April. The Medical Officer incharge was advised to use full PPE for conducting deliveries.
- The PHC has enough of PPE, N95 masks, triple layered mask, sanitizer etc.
- At 11 AM today, a new confirmed case was identified in Jai Anandi Apartment, Devadh village. The case is a Police constable posted in APMC market, Surat Badoli Road. This area is now contained.

## 10. Urban PHC, Kanakpur Kansad

- It caters to a population of 36,000 (11,000 houses) of which 70% are migrant workers (Loom workers) from UP, Odisha & Bihar.
- There is one containment zone where there is one case who was a worker at APMC market.
- The UPHC runs an OPD of 30-40 on an average. Yesterday four cases reported with fever & sore throat. Their samples were taken and sent to New Civil Hospital for testing.
- The Medical Officer not very well aware of the guidelines regarding home quarantine etc.

## 11. Containment Zone: Surat Urban Development Authority (SUDA)village, Sachin

• This area has a population of about 40,000. All of them are migrant workers of Textile industries.

- One case was identified 8 days back. Since, then the area is contained.
- It is very densely populated about 10-15 persons in a single room. Most of them are single males while very few are staying with their families.
- It was brought to our notice that almost all want to go back to their native places in UP, Odisha, Bihar.

#### 12. Containment Zone: Kawas village & Health Centre, Kawas

- This area was contained after a case was identified who was a worker in the APMC market.
- 30 contacts of the case are home quarantined.
- A total of 949 households having a population of 3604 is contained. The containment measures are being followed by all.

#### 13. Metas Adventist Hospital

- The hospital has 100 COVID beds out of which 15 beds are kept for Suspected cases and 85 isolation beds for confirmed cases. There are 15 ICU beds with 10 invasive and 5 non-invasive ventilators.
- For Non-COVID patients, there are 200 non-critical beds and 21 ICU beds.
- A total of 418 cases attended OPD triage, 103 were suspected of having COVID19, 100 samples were taken and sent to New Civil Hospital for testing, out of which 16 came out to be positive. There were a total of 3 deaths. The hospital has dedicated COVID 19 labour room and OT with negative pressure.
- Hospital has enough of PPE kits (1023), Triple layered mask (2852), N95 masks (1750) etc

## 14. Tristar Hospital

- This is dedicated COVID Hospital with 80 beds which are designated as Confirmed case beds (40), Suspected case beds (20) and 20 ICU beds. There are 10 ventilators.
- The stock of PPE kits, triple layered masks, gloves, sanitizer etc is adequate.
- The consultant doctors shared that it will be difficult to sustain this dedicated COVID hospital due to a lot of financial implications. The hospital is paying risk bonus to all the healthcare workers, cost of procuring high quality PPE kits, arrangement of quarantine of the health care workers in nearby hospital are some of the factors which the hospital believe may be hindrance for continuing the hospital as dedicated COVID hospital. The hospital also requested that it may be exempted by SMC to pay electricity and water bills.